

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

(Case No.073305.P074)

In the Application of:

Perino et al.

Serial No: 09/394,984

Filed: 9/13/99

Title: Method and Apparatus to  
Reduce Calculated Worst Case  
Bus Power

Group

Art Unit: 2818

I hereby certify that this  
correspondence is being deposited  
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Patents and Trademarks, Washington,  
D.C. 20231 on \_\_\_\_\_

(Name of Person Mailing  
Correspondence)

\_\_\_\_\_  
Signature Date

Assistant Commissioner for Patents  
Washington, DC 20231

**POWER OF ATTORNEY BY ASSIGNEE, REVOCATION OF ALL  
PRIOR POWERS OF ATTORNEY AND CERTIFICATE UNDER 37 CFR 3.73(b)**

Sir:

The undersigned, being empowered to sign this Power of Attorney, Revocation of All Previous Powers of Attorney and Certificate under 37 CFR 3.73(b) on behalf of Rambus Inc., the assignee of the entire right, title and interest in the above-referenced application, hereby revokes all prior powers of attorney and hereby appoints Lewis C. Lee, Reg. No. 34,656; Daniel L. Hayes, Reg. No. 34,618; Steven R. Sponseller, Reg. No. 39,384; Lance R. Sadler, Reg. No. 38,605; Thomas A. Jolly, Reg. No 39,241; Neil A. Steinberg, Reg. No. 34,735; Paul M. Anderson Reg. No. 39,896; and Paula J. Lagattuta, Reg. No. 40,691, jointly and severally, with full power of substitution and revocation to prosecute this application and to transact all business before the United States Patent and Trademark Office in the above-referenced application.

Rambus Inc. certifies that it is the assignee of the entire right, title and interest in the above-referenced patent

application by virtue of an assignment from the inventors, Donald Victor Perino and Craig E. Hampel. The assignment was recorded on 12/9/99 in the U.S. Patent and Trademark Office at Reel ~~6~~10435, Frame 0886.

The undersigned has had all of the documents in the chain of title of the above-referenced application reviewed and, to the best of the undersigned's knowledge and belief, title is in Rambus Inc., the assignee identified above.


Please direct all correspondence in the above-referenced patent application to:

Daniel L. Hayes, Esq.  
Lee & Hayes, P.L.L. C.  
421 W. Riverside Ave., Suite 500  
Spokane, Washington 99201  
Phone: 509-324-9256  
Fax: 509-323-8979

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so make are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon.

Date:

6-26-01



Neil A. Steinberg, Esq.  
Vice President  
Intellectual Property  
Rambus Inc.

## Patent

**As a below named inventor, I hereby declare that:**

**My residence, post office address and citizenship are as stated below, next to my name.**

## METHOD AND APPARATUS FOR REDUCING WORST CASE POWER

the specification of which

x is attached hereto.  
\_\_\_\_\_ was filed on \_\_\_\_\_ as  
United States Application Number \_\_\_\_\_  
or PCT International Application Number \_\_\_\_\_  
and was amended on \_\_\_\_\_  
(if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claim(s), as amended by any amendment referred to above. I do not know and do not believe that the claimed invention was ever known or used in the United States of America before my invention thereof, or patented or described in any printed publication in any country before my invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, and that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months (for a utility patent application) or six months (for a design patent application) prior to this application.

I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d), of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

"Express Mail" mailing label number: EL 371007305US

Date of Deposit: September 13, 1999

I hereby certify that I am causing this paper or fee to be deposited with the United States Postal Service "Express Mail Post Office to Addressee" service on the date indicated above and that this paper or fee has been addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231

CHRISTOPHER P. MARSHALL  
(Typed or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

**(Date signed)**

09924956-000701

Prior Foreign Application(s)

Priority  
Claimed

_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	_____ Yes	_____ No
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	_____ Yes	_____ No
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	_____ Yes	_____ No

I hereby claim the benefit under title 35, United States Code, Section 119(e) of any United States provisional application(s) listed below:

_____ (Application Number)	_____ Filing Date
_____ (Application Number)	_____ Filing Date

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

_____ (Application Number)	_____ Filing Date	_____ (Status -- patented, pending, abandoned)
_____ (Application Number)	_____ Filing Date	_____ (Status -- patented, pending, abandoned)

I hereby appoint the persons listed on Appendix A hereto (which is incorporated by reference and a part of this document) as my respective patent attorneys and patent agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith.

Send correspondence to Lester J. Vincent, BLAKELY, SOKOLOFF, TAYLOR &  
(Name of Attorney or Agent)  
ZAFMAN LLP, 12400 Wilshire Boulevard 7th Floor, Los Angeles, California 90025 and direct  
telephone calls to Lester J. Vincent, (408) 720-8598.  
(Name of Attorney or Agent)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full Name of Sole/First Inventor Craig Edward Hampel

Inventor's Signature Craig Edward Hampel Date 8 Sept, 1999

Residence San Jose, California Citizenship U.S.A.  
(City, State) (Country)

Post Office Address 5927 Dunn Avenue  
San Jose, California 95123

Full Name of Second/Joint Inventor Donald Victor Perino

Inventor's Signature Donald Victor Perino Date 18 AUG, 1999

Residence Los Altos, California Citizenship U.S.A.  
(City, State) (Country)

Post Office Address 1690 William Henry Court  
Los Altos, California 94024

Full Name of Third/Joint Inventor \_\_\_\_\_

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State) (Country)

Post Office Address \_\_\_\_\_  
\_\_\_\_\_

Full Name of Fourth/Joint Inventor \_\_\_\_\_

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State) (Country)

Post Office Address \_\_\_\_\_  
\_\_\_\_\_

Full Name of Fifth/Joint Inventor \_\_\_\_\_

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State) (Country)

Post Office Address \_\_\_\_\_  
\_\_\_\_\_

Full Name of Sixth/Joint Inventor \_\_\_\_\_

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State) (Country)

Post Office Address \_\_\_\_\_  
\_\_\_\_\_

Full Name of Seventh/Joint Inventor \_\_\_\_\_

Inventor's Signature \_\_\_\_\_ Date \_\_\_\_\_

Residence \_\_\_\_\_ Citizenship \_\_\_\_\_  
(City, State) (Country)

Post Office Address \_\_\_\_\_  
\_\_\_\_\_

## APPENDIX A

William E. Alford, Reg. No. 37,764; Farzad E. Amini, Reg. No. P42,261; Aloysius T. C. AuYeung, Reg. No. 35,432; William Thomas Babbitt, Reg. No. 39,591; Carol F. Barry, Reg. No. 41,600; Jordan Michael Becker, Reg. No. 39,602; Bradley J. Bereznak, Reg. No. 33,474; Michael A. Bernadicou, Reg. No. 35,934; Roger W. Blakely, Jr., Reg. No. 25,831; Gregory D. Caldwell, Reg. No. 39,926; Ronald C. Card, Reg. No. P44,587; Yong S. Choi, Reg. No. P43,324; Thomas M. Coester, Reg. No. 39,637; Michael Anthony DeSanctis, Reg. No. 39,957; Daniel M. De Vos, Reg. No. 37,813; Robert Andrew Diehl, Reg. No. 40,992; Tarek N. Fahmi, Reg. No. 41,402; James Y. Go, Reg. No. 40,621; Dinu Gruia, Reg. No. P42,996; Willmore F. Holbrow III, Reg. No. P41,845; George W. Hoover II, Reg. No. 32,992; Eric S. Hyman, Reg. No. 30,139; Dag H. Johansen, Reg. No. 36,172; William W. Kidd, Reg. No. 31,772; Michael J. Mallie, Reg. No. 36,591; Andre L. Marais, under 37 C.F.R. § 10.9(b); Paul A. Mendonsa, Reg. No. 42,879; Darren J. Milliken, Reg. 42,004; Lisa A. Norris, Reg. No. P44,976; Thien T. Nguyen, Reg. No. 43,835; Thinh V. Nguyen, Reg. No. 42,034; Dennis A. Nicholls, Reg. No. 42,036; Kimberley G. Nobles, Reg. No. 38,255; Daniel E. Ovanezian, Reg. No. 41,236; Babak Redjaian, Reg. No. 42,096; James H. Salter, Reg. No. 35,668; William W. Schaal, Reg. No. 39,018; James C. Scheller, Reg. No. 31,195; Anand Sethuraman, Reg. No. P43,351; Charles E. Shemwell, Reg. No. 40,171; Jeffrey Sam Smith, Reg. No. 39,377; Maria McCormack Sobrino, Reg. No. 31,639; Stanley W. Sokoloff, Reg. No. 25,128; Judith A. Szepesi, Reg. No. 39,393; Vincent P. Tassinari, Reg. No. 42,179; Edwin H. Taylor, Reg. No. 25,129; George G. C. Tseng, Reg. No. 41,355; Joseph A. Twarowski, Reg. No. 42,191; Lester J. Vincent, Reg. No. 31,460; Glenn E. Von Tersch, Reg. No. 41,364; John Patrick Ward, Reg. No. 40,216; Stephen Warhola, Reg. No. 43,237; Charles T. J. Weigell, Reg. No. 43,398; Kirk D. Williams, Reg. No. 42,229; James M. Wu, Reg. No. P45,241; Steven D. Yates, Reg. No. 42,242; Ben J. Yorks, Reg. No. 33,609; and Norman Zafman, Reg. No. 26,250; my patent attorneys, and James A. Henry, Reg. No. 41,064; my patent agent, of BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP, with offices located at 12400 Wilshire Boulevard, 7th Floor, Los Angeles, California 90025, telephone (310) 207-3800, and James R. Thein, Reg. No. 31,710, my patent attorney.

## APPENDIX B

### Title 37, Code of Federal Regulations, Section 1.56 Duty to Disclose Information Material to Patentability

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclosure information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) Prior art cited in search reports of a foreign patent office in a counterpart application, and
  - (2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
  - (2) It refutes, or is inconsistent with, a position the applicant takes in:
    - (i) Opposing an argument of unpatentability relied on by the Office, or
    - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

EL792822335

Attorney's Docket

**ASSIGNMENT**

**PATENT**

No.: 073305.P074 (For Execution After Filing Patent Application)

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, We

the undersigned, Craig Edward Hampel and Donald Victor Perino

hereby sell, assign, and transfer to Rambus Inc.

a corporation of Delaware, having a principal place of business at 2465 Latham Street, Mountain View, CA 94040, ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all improvements that are disclosed in the application for the United States patent that was filed September 13, 1999 and assigned Application No. 09/394,984 and is entitled

METHOD AND APPARATUS FOR REDUCING WORST CASE POWER

and in and to said application and all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions that have been or shall be issued in the United States and all foreign countries on said improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said improvements; execute all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or representatives in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

09/24/99 09:07:01

Date: November 30, 1999

Name: Craig E. Hampel

Date: November 30, 1999

Name: Donald V. Perino

Date: \_\_\_\_\_, 19\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_, 19\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_, 19\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_, 19\_\_

Name: \_\_\_\_\_

State of: California }

SS.

County of: Santa Clara }

Assignment Document Return Address:

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

12400 Wilshire Blvd., Seventh Floor

Los Angeles, California 90025-1026

(408) 720-8598

On this 30<sup>th</sup> day of November 1999, before me, Michiko Sites,  
the undersigned Notary Public, personally appeared Donald V. Perino

☒ personally known to me ☐ proved to me on the basis of satisfactory evidence to be the person(s)  
whose name(s) subscribed to the within instrument, and acknowledged that he executed it.  
WITNESS my hand and official seal.

Michiko Sites

Notary's Signature



State of: California }

SS.

County of: Santa Clara }

On this 30<sup>th</sup> day of November 1999, before me, Michiko Sites,  
the undersigned Notary Public, personally appeared Craig E. Hampel

☒ personally known to me ☐ proved to me on the basis of satisfactory evidence to be the person(s)  
whose name(s) subscribed to the within instrument, and acknowledged that he executed it.  
WITNESS my hand and official seal.

Michiko

Notary's Signature

